Office européen des brevets

(11) EP 0 693 830 A2

## (12) EUROPEAN PATENT APPLICATION

(43) Date of publication: 24.01.1996 Bulletin 1996/04 (51) Int. Cl.6: H04B 7/26

- (21) Application number: 95110927.1
- (22) Date of filing: 12.07.1995
- (84) Designated Contracting States: DE FR GB
- (30) Priority: 20.07.1994 JP 167675/94
- (71) Applicant: HITACHI, LTD. Chiyoda-ku, Tokyo 101 (JP)
- (72) Inventors:Ohgoshi, Yasuo Hachioji-shi (JP)

- Doi, Nobukazu
- Hachioji-shi (JP)

  Yano, Takashi
- Tokorozawa-shi (JP)
- (74) Representative: Strehl Schübel-Hopf Groening & Partner D-80538 München (DE)

## (54) Mobile station for CDMA mobile communication system and detection method of the same

A mobile station of a code division multiple access mobile communication system for transmission by carrying out quadrature multiplexing of a pilot signal and a data signal having I and Q components spread by spectrum from the base station to the mobile station, includes a despreading circuit (21) for generating phase error signals (AI, AQ) by despreading the quadrature multiplexed reception signals (I', Q') (1) by using spreading codes for pilot symbol, another spreading circuit (42) for generating a data signal group (12) by despreading the reception signals (1) by using spreading codes for data symbol, accumulators (41, 44) for converting the transmission rate of the phase error signals and the data signal group into the symbol rate, an averaging circuit (43) for generating phase correction signals (24) from the phase error signals of the symbol rate, and a phase correction circuit (49) for generating data signals (I, Q) (35) with the phase shifts being removed therefrom, by correcting the data signal group by the phase correction signals (24).

